DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-018430
Date Inspected: 01-Dec-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 1000
OSM Departure Time: 1830
Location: Job Site

CWI Name: William Sherwood and Steven McWilliams **CWI Present:** ☑ Yes ☐ No

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 7W/8W side plate ‘C’ (0mm to 3200mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove welding root pass on the splice butt joint. The welder was observed welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040A. The joint and location being welded has a single V-groove butt joint with backing bar and the root gap was ground open on two locations where the gap was originally less than 4mm. The splice joint was preheated to remove moisture from the steel plate using propane gas torch prior welding. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. After completely welding the root pass at location mentioned, the welder cleaned the root pass using 4 ½” disc grinder and power brush. The welder resumed welding after cleaning using the dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16” diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3042B-1. During the FCAW welding, the splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the opposite side of the plate prior/during welding. At the end of the shift, fill pass welding of the splice joint at location mentioned above was still continuing and should remain tomorrow.

At OBG 7W/8W top deck plate ‘A1’ outside, QA randomly observed ABF/JV qualified welder Wai Kitlai perform

CJP groove welding repair number 4. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The repair excavation located at Y-dimension 0mm and having excavation profile of 330mm long x 20mm wide x 24mm deep was preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. Prior welding, ABF QC Steven Mc Connell was also observed performing Magnetic Particle Testing (MT) on the boat shape repair excavation. During the shift, ABF QC Mc Connell was noted monitoring the welder and his welding parameters. Repair welding at location mentioned above was completed at the end of the shift.

At OBG 6E-PP46.5-E2-SE access hole infill plate to top deck plate outside, QA randomly observed ABF/JV qualified welder Wen Han Yu continuing to perform CJP groove fill pass welding. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1010 Revision 1. The joint being welded has a double V-groove butt joint. ABF Quality Control (QC) Steven Mc Connell was noted monitoring the welding parameters of the welder. During the shift, fill pass welding of the butt joint was still continuing and should remain tomorrow.

At OBG 8E-PP61.5-E2-SW access hole infill plate to top deck plate outside, QA observed ABF QC Steven Mc Connell perform fit up alignment verification of the butt joint. QA noted that the alignment was acceptable except the root gap on four locations wherein the gap was measured more than 5mm up to 11mm. QC has marked the areas that need to be battered before they could be welded. QC also mentioned to QA that he will allow the welder Mick Chan to weld the root pass where the gap was acceptable. During welding, ABF/JV qualified welder Mick Chan was observed CJP groove root pass welding. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1010 Revision 1. The joint being welded has a double V-groove butt joint with open root. ABF Quality Control (QC) Steven Mc Connell was noted monitoring the welding parameters of the welder. During the shift, root pass welding of the butt joint was still continuing and should remain tomorrow.

WELDING INSPECTION REPORT

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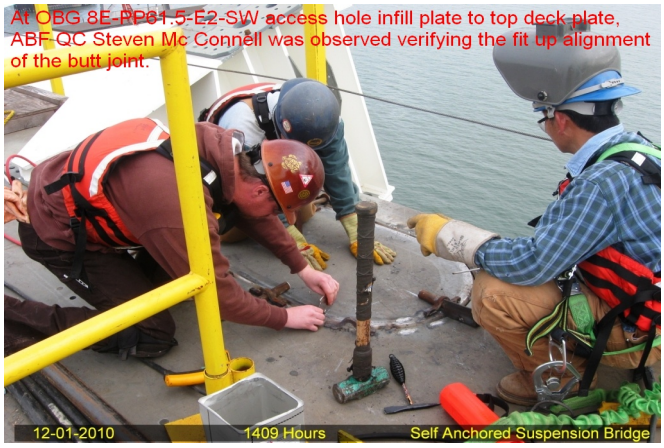

Summary of Conversations:

No significant conversation today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer